

ducing natural enemies which have no close relatives in this country.

Mr. Howard, in answer to another question by Mr. Hopkins, stated that, in his opinion, several of our American Braconids would be likely to attack the introduced European *Clerus*.

Mr. Marlatt asked whether the European species is not more active than our native *Thanasimus*. Mr. Hopkins stated that it is much more active. He stated that he had found it feeding upon five different species of European Scolytids, and that since his arrival in this country he had observed it feeding in confinement upon *Dendroctonus*. He exhibited specimens of living *Clerus formicarius*, and the members of the Society were fortunately able to watch one of these beetles feeding upon a Scolytid with which Mr. Hopkins had enclosed it.

Mr. Ashmead presented the following paper:

#### NOTES ON THE EUCHARIDS FOUND IN THE UNITED STATES.

BY WM. H. ASHMEAD.

Since becoming better acquainted with that great complex of the Hymenoptera, at present known to us under the family name *Chalcididae*, I have gradually come to the conclusion that instead of a single family to deal with we have several distinct families.

Indeed, in many cases, these families are even more distinct and sharply separable than many other of the so-called families in this order; and, until these are properly separated and defined, I believe but little real progress can be made in our systematic knowledge of the Chalcidoidea.

It is not my intention now to go deeply into this subject, but to call attention to one group that I believe should be elevated to family rank, and to make some notes on the species found in the United States.

This group is the sub-family *Eucharinae*. It is represented both in Europe and North America by but few species, although in warmer climes the species become quite numerous. In South America, Africa, Asia, and adjacent Isles, however, it is well represented, and by some forms that appear to be the most unique and wonderful to be found amongst the Hymenoptera.

I hope soon to be able to contribute a paper on their structure

and classification, and have here merely brought together a few of my notes relating to the species found in our fauna.

## ORASEMA Cameron.

In this genus two specimens have been described, as follows:

1. *O. violacea* Ashm. Ent. Am., Vol. III (1888), p. 187.  
Hab.—Fla.

2. *O. minuta* Ashm., l. c. p. 188.  
Hab.—Fla.

To these I now add a third species from California.

3. *O. occidentalis* sp. n.

♀.—Length, 2.5 mm. Dull bronzy green, closely, finely punctate, the head of a brighter metallic green; scape, trochanters, tips of femora, tibiæ and tarsi, pale brownish-yellow; flagellum black, the joints after the first quadrate; mandibles brownish. Thorax not very gibbous; the collar is not visible from above; the mesonotum trilobed; the furrows punctate, the lobes convex; scutellum rounded, elevated posteriorly and with a transverse furrow before the tip, while the metathorax slopes obliquely off posteriorly with lateral sulci. Wings hyaline with brownish nervures; the marginal nervure is long, two-thirds the length of the subcostal, the stigmal minute, the postmarginal developed. Abdomen æneous, the petiole short, stout, finely rugose, one and a half times as long as thick, or as long as the hind coxæ, and metallic green; body of abdomen subtriangular, sulcate above at base.

Hab.—Los Angeles, Cal.

Type in National Museum.

Described from a single specimen collected by A. Koebele.

## CHALCURA Kirby.

(1) *C. gibbosa* Prov.

*Eucharis gibbosa* Prov., Pet. Faune Ent. du Can. II, p. 591.

Hab.—Canada and United States.

This species was described by Provancher, from a female specimen taken in Canada, but the discovery of the male shows that it does not properly belong to the genus *Eucharis* as now restricted, and that it must be relegated to *Chalcura*, the antennæ in this sex being ramose.

Although rare, the species extends from Canada to Texas.

In the National Museum there is a second species closely allied, but evidently distinct, that may be described as follows:

(2) *C. californica* sp. n.

♂.—Length, 3.5 mm. Black, coarsely rugose; frons with coarse longitudinal grooved lines; face below antennæ transversely striate; scape, pedicel, and legs, except the coxæ, brownish-yellow; coxæ and flagellum black; femora obfuscated toward base. The flagellar joints after the third are broken, but each of those present is furnished with a branch longer than the scape. Thorax high, gibbous, more elevated than in *C. gibbosa* Prov.; the metathorax with a depression on each side. Wings hyaline; the tegulæ and the base of the subcostal nervure brownish. Abdomen clavate, polished black; the petiole long and slender, as long as the body of abdomen, and finely striate.

Hab.—Santa Cruz Mts., Cal.

Type in National Museum.

Described from a single specimen collected by A. Koebele.

#### STILBULA Spinola.

(1) *S. montana* Ashm. Bull. No. 1, Col. Biol. Assoc. 1889, p. 24.

Hab.—West Cliff, Col.

Up to the present time the above species, collected by Mr. T. D. A. Cockerell, is the only species known in our fauna.

#### METAGEA Kirby.

In this genus only a single species is known, *M. zalates* Walker, from Australia.

To this I now have the pleasure of adding a second species, collected by Mr. E. A. Schwarz in Maryland and the District of Columbia.

(2) *M. schwarzii* sp. n.

♂ ♀.—Length, 1.5 to 2 mm. Black; antennæ fuscous, the pedicel beneath yellowish; legs, except coxæ, brownish-yellow, the femora toward base, especially the hind pair, sometimes obfuscated; coxæ black; wings hyaline, with a subobsolete cloud beneath the stigma. The head, except the stemmaticum, and the thorax except anteriorly, smooth, polished, impunctate; the parapsidal furrows and a central furrow feebly defined by minute punctures; scutellum, conical, convex, with a longitudinal central furrow, and the apex margined but not bidentate; pleura and metathorax rugose. Antennæ 11-jointed, in ♀ subclavate, scarcely reaching to the tegulæ, the scape and pedicel very short, the first funicular joint being the longest joint and as long as the two former united, the following joints gradually shortened towards the apex; in ♂ filiform, longer, reaching to the metathorax; the third joint also the longest, but the following are twice as long as thick.

Hab.—District of Columbia and Maryland.

Types in Coll. Ashmead.

## LOPHYROCERA Cameron.

(1) *L. nigromaculata* Cam. Biol. Centr. Am. Hym., p. 104, pl. v., fig. 19.

Hab.—Nicaragua and Arizona.

A single specimen of this species was recognized in the Collection of the American Entomological Society collected in Arizona, and is an interesting addition to our fauna.

(2) *L. floridana* Ashm. Ent. Am., vol. iii, p. 187.

Hab.—Florida.

The type of this species is in my collection, although the National Museum contains a second specimen collected by Mr. E. A. Schwarz in Florida.

To these I now add a third species collected by A. Koebele in the Santa Cruz Mountains, in California.

(3) *L. apicalis* sp. n.

♀.—Length, 4 mm. Aeneous black, coarsely rugose; frons with longitudinal striæ; face below antennæ transversely striate; scape, pedicel, and two apical joints of antennæ brownish-yellow; legs, except coxæ, pale brownish-yellow; coxæ black; femora toward base dusky. The flagellar joints, after the first, widen out toward the apex, the 5 or 6 terminal joints being obliquely directed. Thorax very high, gibbous, the scutellum terminating in two prongs that are scarcely one-third as long as the scutellum, while the metathorax has a tooth-like projection on each side. Wings hyaline, the tegulæ and venation pale ferruginous or yellowish, the stigmal vein rather long, two-thirds the length of the postmarginal. Abdomen oblong, very slightly compressed, with the petiole moderately stout, nearly as long as the hind femur and coarsely rugosopunctate.

Hab.—Santa Cruz Mountains, Cal.

Type in National Museum.

Described from a single specimen.

## KAPALA Cameron.

(1) *K. floridana* Ashm. *Thoracantha floridana* Ashm., Ent. Am. i, p. 96, ♂. Proc. Ent. Sec. Acad. Nat. Sc., Phila., 1885, p. xi, ♂♀.

Hab.—Florida.

The genus *Thoracantha* Latreille, as now restricted, will contain only *T. latreillei* Guér., and all the species described as such must now be relegated to other genera.

*T. floridana* belongs to the above genus.

The opportunity is here taken advantage of to describe a Cuban species in the Collection of the American Entomological Society, which will probably be found to occur in South Florida.

It is closely allied to *K. furcata* Fabr., but presents some differences from my specimens of this South American species that I believe entitle it to a separate specific name.

*K. terminalis* sp. n.

♂.—Length, 4 mm. Metallic bronze green; scape, pedicel, legs, except the æneous or metallic coxæ, and abdomen except the petiole and the second segment above, pale brownish-yellow; flagellum brown-black with 9 very long, nearly equal branches; frons longitudinally striate, the face transversely striate. Thorax very high, transversely striate, the mesonotum and scutellum longitudinally striated; processes of the scutellum as long as the abdomen, purplish, finely longitudinally striate. Wings hyaline; the tegulæ and venation yellowish. The abdominal petiole is very long and slender, fully as long as a hind femur, blue-black and finely striate.

Hab.—Cuba.

Types in Coll. American Entomological Society.

Described from 4 badly broken specimens. Comes nearest to *Kapala* (*Thoracantha*) *furcata* Fabr., but of a brighter metallic color, the antennæ and the color of the abdomen being different.

In discussing this paper Mr. Howard asked concerning the exact evidence of the parasitism of certain of the Eucharidæ upon ants. Mr. Ashmead replied that absolute observations had been made in Australia and had been recorded by Forel. The Eucharidæ issued from the pupæ of the ant. Mr. Howard stated that if such an observation had actually been made the matter must be considered as settled, but that he had previously doubted this parasitism for the reason that some of the Eucharidæ are almost too large to be ant parasites. He had suspected that they might be parasitic upon some inquilines in ants' nests. He mentioned the fact that in the collection of St. Vincent Chalcids sent to Prof. Riley from Cambridge University there is a specimen of *Kapala furcata* Fab., which bears in its jaws a medium-sized red ant. He also called attention to the fact that probably the first Eucharid exhibited in this country was shown to this Society at its second meeting, June 5, 1884.

Dr. Riley dissented from Mr. Ashmead's conclusion as to the family rank of this group, and expressed the opinion that it should still be retained as a sub-family of the Chalcididæ.

Professor Riley then presented the following paper :